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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,012	06/04/2002	Antonio Abbondanzio	RPS920010183	7213
25299	7590	01/24/2005	EXAMINER	
IBM CORPORATION PO BOX 12195 DEPT 9CCA, BLDG 002 RESEARCH TRIANGLE PARK, NC 27709			TRAN, VINCENT HUY	
			ART UNIT	PAPER NUMBER
			2115	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/064,012

Applicant(s)

ABBONDANZIO ET AL.

Examiner

Vincent T. Tran

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-11, 13-17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) 4-6, 12 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____                                                 |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____                                                              | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "cabinet" in claim 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "each blade 700" (paragraph 0017), "cabinet 207" (paragraph 0018), "management module 720 (paragraph 002) as described in the specification. Any structural detail that is essential for a proper

understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### *Specification*

1. The abstract of the disclosure is objected to because it should not to exceed more than 150 words in length. Correction is required. See MPEP § 608.01(b).

*Claim Objections*

2. Claims 4, 6, 12, 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Claim 5 objected, a series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) The invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 9, 10, 15, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Cromer et al (U.S. Pub. No. 2002/0099934)

5. As per claim 1,

Cromer discloses a system configuration, comprising:

a set of data processing subsystems [p. 2 [0020]<sup>1</sup>], each subsystem including persistent storage [p.1 [0004]<sup>2</sup>];

a management module connected to each of the subsystems [page 1 paragraph 10<sup>3</sup>];  
wherein the management module includes management module persistent storage<sup>4</sup> containing boot configuration information corresponding to at least one of the subsystems [p. 2 [0023]]; and

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<sup>1</sup> Cromer discloses a system of plethora computers where each potential user of the computer system is assigned a unique user identifier. And each user identifier is associated with a BIOS modules and settings [p.2 [0023]].

<sup>2</sup> The BIOS settings saved locally within the client's CMOS [p. 2 [0024]] where CMOS is a persistent storage ROM [p. 1 [0004]].

<sup>3</sup> The client computer system is couple to a server computer system via a network.

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wherein at least one of the subsystems includes boot code means configured to retrieve its boot configuration information from the management module persistent storage during a boot of the subsystem [p. 2 [0024]].

6. As per claim 2, Cromer discloses a configuration wherein the management module persistent storage includes a boot configuration table containing boots configuration settings corresponding to each of the subsystems in the configuration [p. 2 [0023]].

7. As per claim 9, 10, Cromer et al teach the claimed system configuration. Therefore, Cromer et al teach the system method.

8. As per claim 15, 16, Cromer et al teach the claimed method. Therefore, Cromer et al teach the computer program for performing the claimed method.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negative by the manner in which the invention was made.

9. Claims 3, 11, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer as applied to claim 1 above, and further in view of Dayan et al (U.S. Patent No. 5,230,052)

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<sup>4</sup> BIOS settings used to configure the client during the boot are stored in flash (persistent storage) [p. 3 [0030]].

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10. As per claims 3, 11, 17, Cromer is silent in teaching wherein the boot configuration information as a set of boot configuration commands. However, Dayan et al teach wherein the BIOS master boot including code segment having executable code<sup>5</sup> [col. 7 lines 20-22]. As such, at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Cromer and Dayan to simplify the task of validating system configuration without directly manipulating the addresses of the BIOS memory itself.

11. Claim 5 rejected under 35 U.S.C. 102(b) as being unpatentable by Cromer et al (U.S. Pub. No. 2002/0099934)

12. Cromer does not explicitly teach wherein each of the subsystem comprises a server blade. However, Cromer teaches wherein the system comprises a plurality of computer systems [page 2 paragraph 25)]. As such, it would have been obvious to one of ordinary skill in the art that Cromer's system encompasses the claimed server blade<sup>6</sup> because the other functions performed by the computer do not affect the basis operation of the system.

13. Claims 7, 13, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer as applied to claim 1 above, and further in view of Fulginiti et al (U.S. Pub. No. 2003/0120827)

14. As per claim 7, 13, 19, Cromer does not teach wherein the subsystem is further operable, upon determining that the management module is unavailable during a boot sequence. However,

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<sup>5</sup> The code is executed to load in the BIOS – col. 8 lines 3-4.

<sup>6</sup> Server blade is basically a single motherboard computer with processor, a storage system. Reitze [US. 2003/0097486]



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Fulginiti et al teach wherein, if the server is unavailable, then the subsystem retrieves boot configuration from local hard drive<sup>7</sup> [p. 2 [0021]].

At the time of the invention, it would have been obvious to person of ordinary skill in the art to combine the teachings of Cromer and Fulginiti to ensure that the system is properly booted and function even if the management module is unavailable.

15. Claims 8, 14, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer as applied to claim 1 above, and further in view of Rietze et al (U.S. Pub. No. 2003/0097487)

16. As per claims 8, 14, 20, Cromer does not teach wherein the configuration comprising a dedicated connection between the management module and subsystem. However, Rietze et al teach wherein the server blade may incorporate a system management bus in the midplane, which provide access to the boot functions of storage blade<sup>8</sup> [fig. 1, p. 2 [0020] and p. 4 [0033]] independent of power supplied to the subsystem's processors<sup>9</sup>. As such, it would have been obvious to person of ordinary skill in the art to combine the teachings of Cromer and Rietze et al to retrieve boot configuration settings regardless of the blade's state.

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<sup>7</sup> Further, Broyles et al (U.S. Patent No. 6,356,956) teach wherein network boot devices are accessed first and the local drives are only accessed if the computer fails to boot from the network – col. 7 lines 55-58.

<sup>8</sup> Further, Cromer et al (U.S. Patent No. 6,282,642) teach wherein a system have a communication link that operable for accessed BIOS regardless of whether the computer system is in a normal operating state - Abstract.

<sup>9</sup> The server delivers a highly redundant power system, including plurality of power domains on the midplane. The system minimizes the impact caused by failures of power feeds, power supplies.

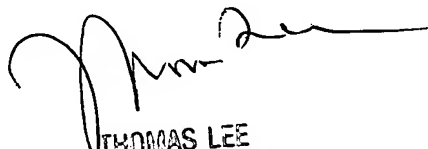
*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent T. Tran whose telephone number is (571) 272-7210. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas c. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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